

## ABSTRACT

A panel, such as a component carrier or substrate, is provided with one or more penetrations. A light source associated with a surface of the panel and the corresponding end of each penetration provides light to the interior of the penetration, which guides the light to the other end of the penetration and corresponding surface of the panel. The penetration can be coated with a reflective material to improve its performance as a light guide. Alternatively or additionally, the penetration can be filled with a refractive material. A diffuser can be provided to diffuse light exiting the penetration. The light sources provides light to selected penetrations on demand such that the penetrations function as displays or elements of a display.